TECHNOLOGY NEEDS/OPPORTUNITIES STATEMENT

CATEGORY 3 MLLW DISPOSAL

Identification No.: RL-MW032
Date: October 2001

Program: Waste Management
OPS Office/Site: Richland Operations Office/Hanford Site
PBS No.: RL-CP02
Waste Stream: 3467 – LDR Compliant Solids from Storage to Disposal, 3468 – LDR Compliant Solids to Disposal
TSD Title: 183 – MLLW-RMW Trenches
Operable Unit (if applicable): N/A
Waste Management Unit (if applicable): N/A
Facility: Low-Level Burial Grounds

Priority Rating:

This entry addresses the "Accelerated Cleanup: Paths to Closure (ACPC)" Priority:

____ 1. Critical to the success of the ACPC
____ 2. Provides substantial benefit to ACPC projects (e.g., moderate to high lifecycle cost savings or risk reduction, increased likelihood of compliance, increased assurance to avoid schedule delays)
_X_ 3. Provides opportunities for significant, but lower cost savings or risk reduction, and may reduce uncertainty in ACPC project success.

Need Title: Category 3 MLLW Disposal

Need/Opportunity Category: *Technology Opportunity* – The Site desires an alternative to the current baseline technology.

Need Description: There could be cost advantages to developing a lighter and more space efficient Category 3 equivalent packaging (vs. concrete or grout) for disposal of this mixed waste. In many cases, because waste is frequently uranium, grout is required for leachability reasons. For others, where grout is not so important, other incompressible packages are currently accepted as equivalent. Mixed waste trench space is very costly, so development of a more space-efficient technology could create a less expensive disposal alternative. Lighter weight alternative packaging would have advantages in offloading the waste into the trench due to lighter equipment and fewer concerns about the weight of large disposal equipment on top of already-disposed and buried waste.

Schedule Requirements:

Earliest Date Required: 6/30/02

Latest Date Required: 6/30/03

Problem Description: A more space-efficient technology is desired**.** Lighter packages will also mitigate the potential for future subsidence and breaching of underlying containers of already-disposed waste.

Potential Life-Cycle Cost Savings of Need (in $000s) and Cost Savings Explanation: TBD

Benefit to the Project Baseline of Filling Need: Cost savings due to more efficient trench use and savings from using lighter equipment for off-loading waste.

Relevant PBS Milestone: N/A

Functional Performance Requirements:

Work Breakdown Structure (WBS) No.:	***TIP No.:***
1.2.2	Candidate

Justification For Need:

Technical: More efficient use of trench space

Regulatory: N/A

Environmental Safety & Health: Minimizes container breaching of underlying waste and the resultant potential exposure to the worker and accessible environment.

Cultural/Stakeholder Concerns: N/A

Other: None identified.

Current Baseline Technology: Disposal using concrete or grout

End-User: Waste Management.

Contractor Facility/Project Manager: TBD

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Waste volume, m^3	Current: TBD; Forecasted (5 yrs): 2,452 m^3
Waste form	Grouted, solid waste
Waste stream I.D.	3467, 3468
Contaminants and co-contaminants	TBD
Function of technology	Develop a more space-efficient disposal technology and resolve waste handling problems.
Source category	Various Hanford Site programs